

Franklin County Multi-Hazard Mitigation Plan

Hazard Risk Assessment

Each jurisdiction must come up with their own **risk assessment**.

Use this document to assist you and your jurisdiction in identifying potential hazards within your area.

After creating a list of hazards, use the risk index equation to calculate a risk for each disaster within your community.

Once you have completed the assessment, please email a copy to Ciara Nixon at ciaranixon@greateregypt.org. If you have any question regarding this assessment, feel free to contact Ciara by telephone at 618-997-9351 ext. 29. Thank you.

Your Information:

Name: _____

Job Title: _____

Date: _____

Time allotted for this document: _____

Check the jurisdiction you represent:

- | | |
|---|---|
| <input type="checkbox"/> City of Benton | <input type="checkbox"/> Village of Freeman Spur |
| <input type="checkbox"/> City of Christopher | <input type="checkbox"/> Village of Hanaford |
| <input type="checkbox"/> City of North City | <input type="checkbox"/> Village of Macedonia |
| <input type="checkbox"/> City of Orient | <input type="checkbox"/> Village of Royalton |
| <input type="checkbox"/> City of Sesser | <input type="checkbox"/> Village of Thompsonville |
| <input type="checkbox"/> City of West Frankfort | <input type="checkbox"/> Village of Valier |
| <input type="checkbox"/> City of Zeigler | <input type="checkbox"/> Village of West City |
| <input type="checkbox"/> Village of Buckner | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Village of Ewing | |



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Hazard Identification

Let's start by thinking about any and all-natural hazards that have affected your community in the past. Do any historical natural hazard events come to mind? If so, start your list of possible natural hazards with experiences that you have been through or have heard of within your community. What happened previously is a great guide in planning and preparing for what may happen again. Even for events that took place 100 or more years ago, there is still the possibility that it could happen again.

Though this list may start with your own personal experiences or based off of stories you've heard, this should not be the only way you come up with a list of natural hazards. There are other natural hazards that may be possible in the future, that may not have happened yet. The nature of some threats may change overtime, whether that is due to weather pattern changes, or just the rarity of that threat happening. It's always good to be prepared for anything and everything, and remember:

*It's not **IF** it happens, it's **WHEN** it happens.*

Below are two different lists of hazards. The first list is of hazards that have historic data in the state of Illinois. The second list of hazards are less probable to happen in Illinois, but are still possible.

Check the box next to each hazard you feel your community should be prepared for.

List of Possible Hazards:

- | | |
|--|---|
| <input type="checkbox"/> Dam Failure | <input type="checkbox"/> Landslide |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Levee Failure |
| <input type="checkbox"/> Epidemic | <input type="checkbox"/> Meteor Impact |
| <input type="checkbox"/> Extreme Heat | <input type="checkbox"/> Terrorism |
| <input type="checkbox"/> Flooding | <input type="checkbox"/> Thunderstorm |
| <input type="checkbox"/> Ground Failure (mine subsidence/Karst/sinkhole) | <input type="checkbox"/> Tornado |
| <input type="checkbox"/> Hazardous Materials Event | <input type="checkbox"/> Volcanic Eruption |
| <input type="checkbox"/> Infestation | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Invasive Species | <input type="checkbox"/> Winter storm/Ice storm |

Are there any other hazards that your community would like to add to their list?



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Risk Assessment

Now, to rank the hazards from the list that you have created, we first need to understand the **Risk Index** equation.

$$\text{RISK INDEX} = \text{PROBABILITY} * \text{SEVERITY}$$

The **PROBABILITY** of an event is how likely the event will occur.

The **SEVERITY** of the event is the degree to which a hazard affects the functionality of society and the natural environment.

Use the table below to give each hazard a probability and severity ranking. Then, use the above equation to complete the hazard risk assessment by giving each hazard a risk index. Use the risk index of each hazard to then rank each hazard by most threatening/important to least threatening/importance.

Probability	Characteristics
4 – Highly Likely	Event is probable within the next calendar year. These events have occurred, on average, once every 1-2 years in the past.
3 – Likely	Event is probable within the next 10 years. Event has a 10-15% chance of occurring in any given year. These events have occurred, on average, once every 3-10 years in the past.
2 – Possible	Event is probable within the next 50 years. Event has a 2-10% chance of occurring in any given year. These events have occurred, on average, once every 10-50 years in the past.
1 – Unlikely	Event is probable within the next 200 years. Event has a 0.5-2% chance of occurring in any given year. These events have occurred, on average, once every 50-200 years in the past.

Severity	Characteristics
8 – Catastrophic	Multiple deaths. Complete shutdown of facilities for 30 or more days. More than 50% of property is severely damaged.
4 – Critical	Injuries and/or illnesses result in permanent disability. Complete shutdown of critical facilities for at least 14 days. More than 25% of property is severely damaged.
2 – Limited	Injuries and/or illnesses do not result in permanent disability. Complete shutdown of critical facilities for more than seven days. More than 10% of property is severely damaged.
1 – Negligible	Injuries and/or illnesses are treatable with first aid. Minor quality of life lost. Shutdown of critical facilities and services for 24 hours or less. Less than 10% of property is severely damaged.

Risk Assessment

Jurisdiction Hazard Risk Assessment

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